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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/589,178

08/11/2006

Achim Hansen

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EXAMINER

LEWIS, JUSTIN V

ART UNIT

PAPER NUMBER

3725

MAIL DATE

DELIVERY MODE

09/15/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/589,178	<b>Applicant(s)</b> HANSEN, ACHIM	
	<b>Examiner</b> JUSTIN V. LEWIS	<b>Art Unit</b> 3725	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>21 December 2006; 27 November 2006</u> .                      | 6) <input type="checkbox"/> Other: _____                          |



## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 8, 10, 15-21, 23, 25 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Application Publication No. 2002/0027361 to Hardwick, et. al. (“Hardwick”).

Hardwick anticipates an object of value (security document 1), comprising a paper carrier layer (see abstract; note that the security document is a bank note), at least one optical security element (see paragraph 37, lines 1-2) which is disposed on the carrier layer (see paragraph 37, lines 2-5) and which has a first layer comprising a printable substance which is disposed in region-wise fashion in pattern form (see figs. 2 and 3) wherein the printable substance comprises binding agent and color pigments or effect pigments (see paragraph 37, lines 14-15), in particular, interference layer pigments or liquid crystal pigments (see paragraph 37, lines 14-15), and the first layer comprising a partially shaped metal layer (see claim no. 9), wherein the metallized or non-metallized regions of the metal layer are shaped in at least region-wise fashion in pattern form in the form of a moiré pattern (see paragraph 22, lines 1-6), and the first layer comprising a replication layer in which a surface structure having an optical-diffraction effect is shaped (see paragraph 44, lines 1-4), the moiré pattern being

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introduced into the surface structure (see paragraph 22, lines 1-6), the surface structure also having an optical-diffraction effect containing a hologram or Kinegram (see paragraph 44, lines 1-4) which shows moiré patterns which differ from different viewing angles so that different moiré images are generated in different viewing directions (note that this is an inherent property of moiré patterns), wherein the object of value has a second layer which contains a moire analyzer (half-window 18) for the moiré pattern of the first layer and which is arranged above or below the first layer in a fixed position relative to the first layer in such a way that the moiré pattern of the first layer and the moiré analyzer of the second layer are permanently optically superimposed at least in region-wise manner (see configuration in fig. 1; note the spatial relationship between security device 20 and half-window 18), whereby a moire image is generated (see figs. 2-3), wherein the object of value has two or more second layers which each contain a respective moiré analyzer for the moiré pattern of the first layer and that one of the second layers is arranged on the same side of the carrier layer as the first layer and a further one of the second layers is arranged on the opposite side of the carrier layer so that a first moiré image is visible when viewed in transmitted light (see paragraph 23, lines 1-5) and a second moiré image is visible when viewed in incident light (see paragraph 57, lines 1-3), wherein the second layer comprises a printable substance (note that the security document is a “banknote”) which is disposed at least in region-wise fashion in pattern form in the form of the moiré analyzer, in particular on the first layer or the side of the carrier layer which is in opposite relationship to the first layer

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(see figs. 1), wherein the carrier layer is transparent or semi-transparent (see half-window area 18, described in paragraph 40).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hardwick in view of U.S. Patent No. 4,892,336 to Kaule, et. al. ("Kaule").

Hardwick discloses the object of value of claim 1, but fails to disclose the first layer comprising a thin film layer system which produces a color change effect.

Kaule teaches a first layer comprising a partially shaped thin film layer system which produces a color change effect (see col. 5, lines 11-14).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the Kaule security feature into the Hardwick security document, in order to provide an anti-falsification feature which is capable of being easily tested visually without technical aids, as explicitly taught by Kaule (see col. 1, lines 53-59).

5. Claims 9 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hardwick in view of U.S. Patent Application Publication No. 2003/0003323 to Murakami, et. al. ("Murakami").

Hardwick discloses the object of value of claim 8, but fails to disclose IR color pigments.

Marakami teaches a printable substance containing IR color pigments so that an image is generated only upon irradiation with IR radiation (see abstract, lines 1-2).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the Marakami IR particles into the Hardwick security document in order to obtain an anti-falsification effect (see abstract, lines 24-25).

6. Claims 11-13 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hardwick in view of U.S. Patent No. 5,712,731 to Drinkwater, et. al. ("Drinkwater").

Hardwick discloses the object of value of claim 1, but fails to disclose a transfer layer having a partially shaped metal layer.

Drinkwater teaches a second layer which is part of a transfer layer of a transfer film which is applied to the first layer or the side of the carrier layer which is in opposite relationship to the first layer, wherein the transfer layer has a partially shaped metal layer, wherein the metallized or non-metallized region of the metal layer is shaped at least in a region-wise manner in pattern form in the form of the moiré analyzer, and wherein the transfer layer has a replication layer and a reflection layer, in particular a metal layer, wherein a surface structure having an optical-diffraction effect is shaped into the interface between the replication layer and the reflection layer and the reflection layer is shaped at least in region-wise fashion in pattern form in the form of the moiré analyzer (see col. 11, lines 19-28 and 54-64).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the Drinkwater metalized moiré security features into the Hardwick security document, in order to provide a security feature which is suited to mass production techniques by utilizing the effects of a two-dimensional array of spherical microlenses, as explicitly taught by Drinkwater (see col. 1, lines 55-58).

7. Claims 14 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hardwick in view of U.S. Patent Application Publication No. 2003/0137145 to Fell, et. al. ("Fell").

Hardwick discloses the object of value of claim 1, but fails to disclose a loose moiré analyzer.

Fell teaches a loose moiré analyzer (window 5) which is not arranged in a fixed position relative to the first layer (see fig. 7) and the second layer and which is so designed that a moiré image is generated when the loose moiré analyzer is brought into overlapping relationship with the first and/or the second layer (see fig. 8).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to add the Fell separate moiré analyzer to the Hardwick security document in order to provide a safe and easy means to protect and authenticate it without the need for a specific apparatus and/or for a complex label structure, as explicitly taught by Fell (see paragraph 6).



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN V. LEWIS whose telephone number is (571)270-5052. The examiner can normally be reached on M-F 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris H. Banks can be reached on (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Derris H Banks/  
Supervisory Patent Examiner, Art Unit 3725  
/JVL/